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(54) **HYBRID ENERGY STORAGE SYSTEMS
UTILIZING REDOX ACTIVE ORGANIC
COMPOUNDS**

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(58) **Field of Classification Search**
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See application file for complete search history.

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(57) **ABSTRACT**

Redox flow batteries (RFB) have attracted considerable interest due to their ability to store large amounts of power and energy. Non-aqueous energy storage systems that utilize at least some aspects of RFB systems are attractive because they can offer an expansion of the operating potential window, which can improve on the system energy and power densities. One example of such systems has a separator separating first and second electrodes. The first electrode includes a first current collector and volume containing a first active material. The second electrode includes a second current collector and volume containing a second active material. During operation, the first source provides a flow of first active material to the first volume. The first active material includes a redox active organic compound dissolved in a non-aqueous, liquid electrolyte and the second active material includes a redox active metal.

5 Claims, 5 Drawing Sheets

